

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 14 84 2255

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|--|--|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
| X | LAZAR G A ET AL: "Engineered antibody Fc variants with enhanced effector function", PROCEEDINGS NATIONAL ACADEMY OF SCIENCES PNAS, NATIONAL ACADEMY OF SCIENCES, US, vol. 103, no. 11, 1 March 2006 (2006-03-01), pages 4005-4010, XP002403708, ISSN: 0027-8424, DOI: 10.1073/PNAS.0508123103 * abstract; figures 1-7; table 1 * | 1,2,4-17 | INV. C07K16/00 |
| X | WO 2012/125559 A1 (JANSSEN BIOTECH INC [US]; ALMAGRO JUAN CARLOS [US]; ANDERSON GLENN MAR) 20 September 2012 (2012-09-20) * page 58; claim 31 * | 1,2,4-17 | |
| X | WO 2008/137382 A1 (CENTOCOR INC [US]; ANDERSON GLENN M [US]; SCALLON BERNARD [US]) 13 November 2008 (2008-11-13) * claims 1, 6 * | 1,2,4-17 | |
| X | IIDA SHIGERU ET AL: "Two mechanisms of the enhanced antibody-dependent cellular cytotoxicity (ADCC) efficacy of non-fucosylated therapeutic antibodies in human blood", BMC CANCER, BIOMED CENTRAL, LONDON, GB, vol. 9, no. 1, 18 February 2009 (2009-02-18), page 58, XP021049068, ISSN: 1471-2407, DOI: 10.1186/1471-2407-9-58 * the whole document * | 1,2,4-17 | TECHNICAL FIELDS SEARCHED (IPC) C07K |
| The supplementary search report has been based on the last set of claims valid and available at the start of the search. | | | |
| Place of search Munich | | Date of completion of the search 3 April 2017 | Examiner Lechner, Oskar |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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EPO FORM 1503 03.82 (P04N04)

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| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|---|---|---|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (IPC) |
| A | <p>TSUNEHIRO MIZUSHIMA ET AL: "Structural basis for improved efficacy of therapeutic antibodies on defucosylation of their Fc glycans", GENES TO CELLS, WILEY-BLACKWELL PUBLISHING LTD, GB, vol. 16, no. 11, 1 November 2011 (2011-11-01), pages 1071-1080, XP002696787, ISSN: 1356-9597, DOI: 10.1111/J.1365-2443.2011.01552.X * the whole document *</p> <p>-----</p> | 1,2,4-17 | |
| | | | TECHNICAL FIELDS SEARCHED (IPC) |
| | | | |
| The supplementary search report has been based on the last set of claims valid and available at the start of the search. | | | |
| Place of search Munich | | Date of completion of the search 3 April 2017 | Examiner Lechner, Oskar |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p> | | | |

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EPO FORM 1503 03.82 (P04N04)

CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims:

1, 2, 4-17(all partially)

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 239 (excluding the subject matter of other inventions)

2. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 241 (excluding the subject matter of other inventions)

3. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 262 (excluding the subject matter of other inventions)

4. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 264 (excluding the subject matter of other inventions)

5. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 265 (excluding the subject matter of other inventions)

6. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 296 (excluding the subject matter of other inventions)

7. claims: 1, 2, 4-17(all partially)

An Fc-containing molecule comprising one amino acid

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

substitutions within the Fc, wherein said Fc comprises a substitution at position 301 (excluding the subject matter of other inventions)

8. claims: 1, 3-17(all partially)

An Fc-containing molecule comprising amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 239 and at 264 (excluding the subject matter of other inventions)

9. claims: 1, 3-17(all partially)

An Fc-containing molecule comprising amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 239 and at 265 (excluding the subject matter of other inventions)

10. claims: 1, 3-17(all partially)

An Fc-containing molecule comprising amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 264 and at 296 (excluding the subject matter of other inventions)

11. claims: 1, 3-17(all partially)

An Fc-containing molecule comprising amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 264 and at 265 (excluding the subject matter of other inventions).

12. claims: 1, 3-17(all partially)

An Fc-containing molecule comprising amino acid substitutions within the Fc, wherein said Fc comprises a substitution at position 239 and at 264.

13. claims: 1-17(partially)

Other claimed inventions not covered by inventions 1-12. In case the applicant selects this invention, he is invited to specify the exact nature of said invention(s). In case of payment for this invention without providing details on the (claimed!) subject matter to be searched a no-search will

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

have to be issued. This last group should ensure that no invention was overlooked by the search examiner.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 14 84 2255

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

03-04-2017

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
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